IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF TEXAS
MIDLAND/ODESSA DIVISION

INTELLECTUAL VENTURES I LLC and INTELLECTUAL VENTURES II LLC,	§	
	§	
***Plaintiffs*,**	§	**Civil Action No. 7:24-cv-00277-ADA**
	§	
v.	§	**JURY TRIAL DEMANDED**
	§	
SOUTHWEST AIRLINES CO.,	§	
	§	
***Defendant*.**	§	

DEFENDANT SOUTHWEST AIRLINES CO.'S
RULE 12(b)(6) MOTION TO DISMISS

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I. INTRODUCTION

Defendant Southwest Airlines Co. ("Southwest") moves to dismiss Counts I and VI of Plaintiffs' Complaint pursuant to Rule 12(b)(6) because the asserted patent claims do not meet the eligibility requirements of 35 U.S.C. § 101 under *Alice Corp. v. CLS Bank Int'l*, 573 U.S. 208 (2014). U.S. Patent Nos. 8,332,844 ("the '844 Patent") and 7,257,582 ("the '582 Patent") are directed to abstract ideas involving data organization and task management. The patents claim the application of longstanding principles of organizing, storing, and processing data in the context of a computer network using generic components and conventional methods. They fail both steps of the *Alice* test.

Additionally, Southwest moves to dismiss Plaintiffs' direct and indirect (induced/contributory) infringement claims in Counts I–III and VI for failing to provide sufficient factual allegations to meet the plausibility standard under *Ashcroft v. Iqbal*, 556 U.S. 662, 678 (2009). The Complaint never identifies what specific Southwest products or services supposedly infringe, instead relying on speculative mapping of claims against third-party open-source software. Further illustrating the implausible nature of Plaintiffs' claims, the Complaint acknowledges that some enterprise software providers are licensed under the patents, but fails to specify which vendors are licensed or show that Southwest's vendors are unlicensed. Much more is required to state a valid claim for relief.

II. STANDARDS

To survive dismissal, the Complaint must state a claim that is "plausible on its face" by providing "factual content" to allow the Court "to draw the reasonable inference" that Southwest is liable for the misconduct alleged. *Iqbal*, 556 U.S. at 678. It is "insufficient" if the Complaint "offers only 'labels and conclusions' or 'formulaic recitation of the elements of a cause of action.'" *Grecia Estate Holdings LLC v. Meta Platforms, Inc.*, 605 F. Supp. 3d 905, 909 (W.D. Tex. 2022).

Under *Alice's* two-step test for examining patent eligibility, 573 U.S. at 217–18, a patent claim is invalid if (1) it is directed to a patent-ineligible concept like an abstract idea, and (2) it lacks elements sufficient to transform the claim into a patent-eligible application. *See SAP Am., Inc. v. InvestPic, LLC*, 898 F.3d 1161, 1166–67 (Fed. Cir. 2018). Though patent eligibility can depend on underlying facts, it is ultimately a question of law, *Berkheimer v. HP Inc.*, 881 F.3d 1360, 1365 (Fed. Cir. 2018), often properly resolved on a Rule 12(b)(6) motion. *SAP Am.*, 898 F.3d at 1166.

III. ARGUMENT

A. Count I: The '844 Patent Claims Ineligible Subject Matter.

The '844 Patent, titled "Root Image Caching and Indexing for Block-Level Distributed Application Management," claims methods for organizing and storing information. Dkt#1-1. Claim 7 below is charted as representative for Count I (Dkt#1 ¶¶ 39, 49; Dkt#1-8):

> 7. A method for **providing data to a plurality of compute nodes**, comprising:
>
> **storing blocks of a root image** of said compute nodes **on a first storage unit**;
>
> **storing leaf images** for respective compute nodes **on respective second storage units**, said leaf images including only additional data blocks not previously contained in said root image and changes made by respective compute nodes to the blocks of the root image, wherein said leaf images of respective compute nodes do not include blocks of said root image that are unchanged by respective compute nodes; and
>
> **caching blocks of said root image** that have been accessed by at least one of said compute nodes **in a cache memory**.[1]

The specification admits that the claimed components and methods—clustered computing, root-leaf storage systems, and caching mechanisms—were conventional. For example:

- Clustered computing and distributed file systems were established practices (Dkt#1-1 at 1:31–45);

[1] Dkt#1-1 (emphasis supplied throughout unless otherwise noted). The "leaf" image limitation is discussed later in Section III.C.3., as the charted infringement theory is implausible on its face, specifically the specification's discussion of the "leaf" image and filesystem operating at different levels. Dkt#1-1 at 2:13-33.

- Root-leaf storage systems were a common method for creating boot images "on the fly" (*id.* at 2:14–24); and
- Caching mechanisms, including least-recently-used (LRU) algorithms, were known (*id.* at 6:38–7:17).

The patent relies on general-purpose computing devices, as shown in Fig. 1, with generic storage media (*id.* at 4:27–56), and *unclaimed* components, such as "Union Block Devices" (UBDs), described as low-level drivers with no disclosed novel functionality (*id.* at 5:19–64). Claim 7 employs broad functional language like "providing," "storing," and "caching," without specifying any improved algorithms, hardware, or software.

1. Claim 7 is directed to an abstract idea for organizing and storing information.

Claim 7 is directed to the abstract idea of organizing and storing information using a "root-leaf" structure. Although applied to a computer network, the method steps—storing root and leaf images and caching accessed blocks—mirror basic data collection and organization practices, analogous to longstanding human activities. The patent attempts to claim the concept of storing some information in a central repository for permanent storage and common use (a root image), storing other non-identical data locally for faster retrieval and personal use (leaf images), and keeping recently used items temporarily on hand (cached). Such abstract ideas for how to organize and store data on computer systems are one of "the 'basic tools of scientific and technological work' that are free to all men and reserved exclusively to none." *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1146 (Fed. Cir. 2016) (quoting *Alice*, 573 U.S. at 216). Courts have consistently held such practices abstract. *See Intellectual Ventures I LLC v. Erie Indem. Co.*, 850 F.3d 1315, 1327 (Fed. Cir. 2017) (organizing and accessing data held abstract); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1347 (Fed. Cir. 2014) (data collection and storage held abstract); *Kaavo Inc. v. Amazon.com Inc.*, 323 F. Supp. 3d 630, 641 (D.

Del. 2018) ("setting up and managing a cloud computing environment" held abstract); *Versata Software, Inc. v. NetBrain Techs., Inc.*, No. 13-676-LPS-CJB, 2015 WL 5768938, at *7 (D. Del. Sept. 30, 2015) ("representing information in a hierarchy amounts to an abstract idea.").

The specification confirms that the described components and techniques, including root-leaf storage systems and caching mechanisms, were well understood at the time of the invention. Dkt#1-1 at 1:31–45, 6:37–7:5. The claim provides no specifics on storage structures/hardware, caching algorithms/techniques, or other technical improvements, relying instead on functional language that describes high-level results without specific implementation details. *See ChargePoint, Inc. v. SemaConnect, Inc.*, 920 F.3d 759, 769 (Fed. Cir. 2019) ("Even a specification full of technical details about a physical invention may nonetheless conclude with claims that claim nothing more than the broad law or abstract idea underlying the claims.").

Claim 7's scant details about what data gets saved where are inherently abstract. *See Content Extraction*, 776 F.3d at 1347 ("The concept of data collection, recognition, and storage is undisputedly well-known. Indeed, humans have always performed these functions."). "This type of activity, i.e., organizing and accessing [data], includes longstanding conduct that existed well before the advent of computers and the Internet." *Erie Indem.*, 850 F.3d at 1327. Claim 7 includes no purportedly novel technical details for cluster computing—just an abstract idea for how to organize and store data. In the end, the claim is little different from a librarian storing different types of books and papers in different sections of a library. Claim 7 therefore fails *Alice* Step 1 because it recites a conventional root-leaf storage system using a high-level abstract concept to organize and store data without any specific technological improvement recited in the claim.

2. Claim 7 lacks an inventive concept.

Under Step 2 of the *Alice* framework, a claim must include an "inventive concept" sufficient to transform an abstract idea into patent-eligible subject matter. *Alice*, 573 U.S. at 217. To qualify,

the claim must add something "significantly more" than the abstract idea itself, such as an improvement to the functioning of a computer or a specific application of technology. *See Erie Indem.*, 850 F.3d at 1328. "If a claim's only 'inventive concept' is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea." *BSG Tech LLC v. Buyseasons, Inc.*, 899 F.3d 1281, 1290–91 (Fed. Cir. 2018). "The written description is particularly useful in determining what is well-known or conventional." *Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307, 1317 (Fed. Cir. 2016). Moreover, "a claimed invention's use of the ineligible concept to which it is directed cannot supply the inventive concept that renders the invention 'significantly more' than that ineligible concept." *BSG Tech*, 899 F.3d at 1290.

Claim 7 fails Step 2, in part, because "the claim[] use[s] generic computers to perform generic computer functions." *Symantec*, 838 F.3d at 1315. The specification concedes that the claimed methods are standard, including storing root images on a first storage unit, leaf images on second storage units, and caching accessed blocks. Dkt#1-1 at 2:14–21, 6:38–67. Thus, even if the specification discloses ideas that could be applied to useful ends, Claim 7 "contains no restriction on how the result is accomplished." *Symantec,* at 1316.

The *claimed* steps are described at a high level of generality, with no new algorithms, configurations, or technological improvements. Generic terms like "providing," "storing," and "caching" describe desired outcomes without specifying any "inventive concept" for how these tasks are performed. *See BSG Tech*, 899 F.3d at 1290-91 ("If a claim's only 'inventive concept' is the application of an abstract idea using conventional and well-understood techniques, the claim has not been transformed into a patent-eligible application of an abstract idea"); *Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1356 (Fed. Cir. 2016) (drawing the "distinction between ends

sought and particular means of achieving them, between desired results (functions) and particular ways of achieving (performing) them").

Courts have invalidated analogous claims. In *Symantec Corp.*, 838 F.3d 1307, the Federal Circuit invalidated claims for managing email messages using conventional computer components. Similarly, *Content Extraction*, 776 F.3d 1343, held claims for data recognition and storage invalid because they relied on routine computing methods. Claim 7 falls into the same category, as it merely recites routine computing techniques and hardware.

Claim 7 offers no inventive step, combining conventional techniques predictably to achieve abstract goals. It relies on generic computing elements and routine data management practices, failing *Alice* Step 2. Because Claim 7 is ineligible under §101, Count I should be dismissed.

B. Count VI: The '582 Patent Claims Ineligible Subject Matter.

The '582 Patent, titled "Method for Managing Distributed Processing of Tasks in a Network," claims a method for subtask processing in distributed computing systems. (Dkt#1-6). Claim 1, charted as representative (Dkt#1 ¶¶ 119, 129; Dkt#1-13; Dkt#1-14) for Count VI, recites:

> 1. A method of effecting on **a preexisting input file** a computer-executable process **comprised of a plurality of subtasks**, the method comprising the steps of:
>
> (a) automatically determining file allocation and **logically subdividing records of said input file into a plurality of partitions**;
>
> (b) **distributing descriptions of** all of said **partitions to** each of a plurality of **subtask processors**[;]
>
> (c) **simultaneously executing** at least a respective **one of the subtasks** of the computer-executable process in each of at least some of said processors on a respective one of the partitions with each subtask reading and processing the respective partition so as to process the respective partition and produce respective subtask output and;
>
> (d) thereafter **repeating step (c)** in at least some of the subtask processors each **with another unprocessed partition on a first-come/first-served basis**; and

> (e) generating at least one output **combining all of the subtask outputs** and reflecting the processing of all of said subtasks.

The patent admits that these steps mostly were well known in the art, including partitioning data, distributing tasks, parallel processing, and aggregating results. Dkt#1-6 at 3:35-47, 3:67-4:15, 4:59-63. Partitioning (step a) relies on conventional techniques, such as byte ranges or track addresses, while subtask distribution (step b) employs generic mechanisms using control files; processing subtasks (step c) involves standard read-process-write operations, and aggregation (step e) is "of course" a conventional merging operation. *Id.* at 3:35-4:15, 4:59-63.

The claimed first-come/first-served scheduling (step d) was argued during prosecution as the "primary difference" over the prior art. *See* Ex. A, Mar. 2, 2007 Remarks.[2] According to the applicant, the prior art used "load information to distribute the load between processors," whereas:

> *With the instant invention … load information is not created* …. Instead, the load sharing is done as a byproduct of the fact that *the load-sharing process take parts of the load on a first-come/first-served basis*. A comparison would be to a road intersection where, according to the prior art, there is a traffic light that determines who can go when. The instant invention is more like such an intersection with a four-way stop so that the individual drivers determine who can go and when.

Id. The patentee's admission about the "primary difference" between the claimed invention and the prior art is critical in two ways. First, by pinpointing the "first available" assignment technique as the point of novelty, the inventors have defined what the claimed invention is "directed to" for purposes of the *Alice* Step 1 inquiry. *See Affinity Labs of Tex., LLC v. DIRECTV, LLC*, 838 F.3d 1253, 1257–58 (Fed. Cir. 2016) ("The 'abstract idea' step of the inquiry calls upon us to look at the 'focus of the claimed advance over the prior art' to determine if the claim's 'character as a whole' is directed to excluded subject matter."). Second, by the simple comparison between the

[2] "Courts may take judicial notice of government records, like prosecution history . . . , even when resolving a Rule 12(b)(6) motion." *Vervain, LLC v. Micron Tech., Inc.*, 2022 WL 23469, at *5 n.2 (W.D. Tex. Jan. 3, 2022) (Albright, J.).

invention and the managing of traffic loads at a street intersection, the inventor acknowledged that his "invention" merely applies a longstanding method of organizing human activities to computers.

The methods described in the '582 Patent implement that abstract concept using generic computing components, such as processors and memory, which are standard elements in distributed systems. The claims use simple functional language to describe desired outcomes—partitioning, distributing, processing, scheduling, and aggregating—without detailing *how* these operations are performed or improved.

1. Claim 1 is directed to an abstract scheduling technique.

Claim 1 of the '582 Patent is directed to the abstract idea of dividing a large task into subtasks and processing them using available resources on a first-come/first-served basis. It comprises five steps: (a) "logically subdividing records . . . into a plurality of partitions," (b) distributing descriptions of those partitions to multiple "subtask processors," (c) "simultaneously executing" at least one "subtask" on each of the subtask processors, (d) thereafter allocating any remaining "unprocessed partition" to the subtask processors "on a first-come/first-served basis," and (e) aggregating "all of the subtask outputs" into a final combined output.

These steps embody a fundamental approach to task management: *e.g.*, breaking up a large job into discrete tasks, passing out a first round of assignments to team members, instructing them to ask for a new assignment when finished, and then combining the results. Such practices have been employed by humans since the building of the Egyptian pyramids. The Federal Circuit has consistently held that processes based on such fundamental organizational practices are abstract. *See Intellectual Ventures I LLC v. Capital One Bank (USA)*, 792 F.3d 1363, 1367 (Fed. Cir. 2015) (organizing, storing, and retrieving information held abstract).

"[T]here is a critical difference between patenting a particular concrete solution to a problem and attempting to patent the abstract idea of a solution to the problem in general." *Elec. Power*,

830 F.3d at 1356. Claim 1 is the latter. It does not improve computer technology or solve a specific technical problem. Instead, it applies conventional and "common sense" workload management ideas to distributed computing, using steps the specification acknowledges as well-known and routine. Partitioning data, distributing tasks, processing in parallel, and aggregating results are standard operations in distributed computing systems. Dkt#1-6 at 3:35–4:15, 4:59–63.

The claim's recitation of assigning work using first-come/first-served scheduling—a ubiquitous method of task processing akin to queue management (e.g., a line at a concession stand or a four-way stop)—demonstrates its abstract nature. Claim 1 applies this principle to parallel computer processing without offering any new technological innovation. Moreover, Claim 1 uses abstract functional language to describe desired outcomes—such as "logically subdividing," "distributing," and "aggregating"—without detailing how these steps are performed. In *Two-Way Media*, the Federal Circuit held that reciting a series of steps to achieve a desired result, without specifying how those steps are performed, renders the claim abstract. *See Two-Way Media Ltd. v. Comcast Cable Commc'ns, LLC*, 874 F.3d 1329, 1337–38 (Fed. Cir. 2017) ("routing" and "accumulating records" held abstract and invalid). Even though the specification describes conventional methods for these operations, Claim 1 does not specify how data is partitioned, how partitioned subtasks are distributed, or how results are aggregated. Dkt#1-6 at 3:35–4:15, 4:59–63. Such high-level, results-oriented language underscores the claim's abstract nature. As the Federal Circuit noted in *Electric Power*, claims that focus on the outcome of data processing without specifying the means to achieve it are abstract and invalid. 830 F.3d at 1356.

Because Claim 1 of the '582 Patent is directed to a fundamental method for organizing and processing tasks, it falls squarely within the category of claims deemed ineligible under Step 1 of the *Alice* framework.

2. Claim 1 lacks an inventive concept.

As to *Alice* Step 2, Claim 1 of the '582 Patent recites only conventional steps and generic components without introducing any meaningful technical improvements or innovations. The claim elements, individually and in combination, reflect routine operations in distributed computing, as explicitly acknowledged in the specification. Partitioning input data into subsets, distributing tasks to processors, and processing tasks in parallel were standard techniques for optimizing workload distribution at the time. Dkt#1-6 at 3:35-4:15, 4:59-63.

The first-come/first-served scheduling technique, likewise, is a well-established method for processing tasks based on availability, like the applicant's example of the four-way stop sign. Claim 1 of the '582 Patent "merely applies [this] well-known idea using generic computers." *Symantec*, 838 F.3d at 1314. The specification does not describe any modification, improvement, or adaptation of this scheduling technique to make it unique or unconventional in the context of distributed computing. The claim simply applies this known concept predictably to allocate unprocessed subtasks, offering no specific mechanisms or technical enhancements. Thus, Claim 1 is "directed to a result or effect that itself is the abstract idea and merely invoke[s] generic processes and machinery" rather than "a specific means or method that improves the relevant technology." *Yu v. Apple Inc.*, 1 F.4th 1040, 1043 (Fed. Cir. 2021). "What is claimed is simply a generic environment in which to carry out the abstract idea." *Id.*

Confirming the routine nature of the claimed methods, both the specification and Claim 1 rely entirely on generic computing components, such as processors, memory, and standard network architecture. Dkt#1-6 at 4:27–36; *Trinity Info Media, LLC v. Covalent, Inc.*, 72 F.4th 1355, 1364, 1366–67 (Fed. Cir. 2023) (generic computer components such as "processors" and "memory" insufficient to add an inventive concept). The patent does not propose any novel configurations or

functionalities for these components but instead recites conventional "functions in general terms, without limiting them to technical means for performing the functions that are arguably an advance over conventional computer and network technology." *Elec. Power*, 830 F.3d at 1351.

Claim 1's reliance on functional language—such as "automatically determining," "logically subdividing," "distributing," "executing," and "combining"—describes desired outcomes without specifying how those outcomes are achieved. For example, it does not explain how data is partitioned into subsets, how subtasks are allocated, how unallocated tasks are managed, or how results are aggregated into a final output. Dkt#1-6 at 6:47–4:15, 4:59–63. This lack of specificity leaves the claim framed at a high level of abstraction, with no concrete implementation details that could transform the method into a patent-eligible application.

Courts have consistently held analogous claims ineligible under Step 2 of the *Alice* framework. In *Content Extraction*, 776 F.3d at 1348, the court found "no 'inventive concept'" in the use of generic computer components to perform routine activities. Similarly, in *Symantec Corp.*, 838 F.3d at 1320, the Federal Circuit emphasized that for a computer-implemented invention to be patent-eligible, it must involve more than well-understood, routine, and conventional activities. Like the claims in these cases, Claim 1 merely applies abstract principles of task management to distributed computing using conventional techniques, which does not suffice to render it patent-eligible.

Viewed as a whole, Claim 1 combines conventional steps in a predictable manner to achieve the abstract goal of managing distributed tasks. It offers no technological advancements or inventive concepts beyond the abstract idea itself. Accordingly, Claim 1 of the '582 Patent fails to meet the requirements for patent eligibility under 35 U.S.C. § 101.

C. Counts I–III and VI: Plaintiffs' Direct Infringement Claims Are Implausible.

Direct patent infringement occurs only if a person "without authority makes, uses, offers to sell, or sells any patented invention, within the United States . . . during the term of the patent[.]"

35 U.S.C. § 271(a). A complaint must "place the alleged infringer 'on notice of what activity . . . is being accused of infringement.'" *Bot M8 LLC v. Sony Corp. of Am.*, 4 F.4th 1342, 1352 (Fed. Cir. 2021). To provide notice, "[t]here must be some allegation of specific services or products of the [accused infringer] which are being accused." *Addiction & Detoxification Inst. L.L.C. v. Carpenter*, 620 F. App'x 934, 937 (Fed. Cir. 2015).

A plaintiff's failure to identify a specific accused product or service of the defendant is sufficient grounds for dismissal. In *Carpenter*, for example, the complaint alleged that the accused infringers directly infringed by engaging in "activities, methods and procedures" covered by the patent. 620 F. App'x at 935. In affirming dismissal of the direct infringement claim, the Federal Circuit held that the patentee's "bare allegation" did not satisfy the notice requirement because it "provides no detail whatsoever that would put [d]efendants on notice as to what activity, method, or procedure is alleged to infringe[,]" emphasizing "[i]t is not enough to say 'you infringe my patent.'" *Id.* at 937. Instead, a plaintiff must provide "some allegation of specific services or products of the defendants which are being accused." *Id.*; *see also View Eng'g, Inc. v. Robotic Vision Sys., Inc.*, 208 F.3d 981, 986 (Fed. Cir. 2000) (a plaintiff must "apply the claims of each and every patent that is being brought into the lawsuit to *an accused device* and conclude that there is a reasonable basis for a finding of infringement of at least one claim of each patent so asserted.").

Charting infringement of a third-party system without plausibly demonstrating actual use by the defendant does not suffice. In *WirelessWerx IP LLC v. OnStar, LLC*, the patent owner referred to the accused products as "[OnStar's] accused products or services, i.e., OnStar's products," "its products and services (e.g., OnStar services)," "by way of example and without limitation, OnStar's products, www.onstar.com," and "OnStar's products (which can be found at onstar.com)." 2024 WL 1607018, at *9 (E.D. Mich. Apr. 12, 2024). The complaint included a claim

chart describing alleged infringement *by a non-party's app* to "describe[] infringement by the 'Accused Products'" and show "how the Accused Product operate[d] with a[] [third-party] app." *Id.* at *10. The court concluded "the FAC 'do[es] not fairly identify the accused [OnStar product]' because it 'does not sufficiently identify . . . the particular [OnStar product] that allegedly infring[es][.]'" *Id.* In *Celgard*, the plaintiff described the accused products "as any/all Farasis products[,]" including "storage batteries, pouch cells, battery packs, and fuel systems" which "are believed to contain [non-party's] infringing separators." *Celgard, LLC v. Shenzhen Senior Tech. Material Co. (US) Research Inst.*, 2020 WL 7392909, at *4 (N.D. Cal. July 23, 2020). This language "fail[ed] to provide sufficient factual content to 'identify the Accused Products' [in which the infringing technology resides] and allow the court to draw the reasonable inference that [the accused infringers] are liable for infringement." *Id.* at *3–4.

1. The Complaint does not provide Southwest adequate notice of infringement.

Plaintiffs assert that various third-party software programs practice the '844, '722, '785, and '582 Patents (the "Software Patents") in Counts I–III and VI. Dkt#1 ¶¶39, 55, 71, 119; Dkt#1-8 at 2; Dkt#1-9 at 2; Dkt#1-10 at 2; Dkt#1-13 at 2; Dkt#1-14 at 2. Specifically, the Complaint alleges that Southwest offers unspecified "services and technologies" that use the third-party software programs Kubernetes, Kafka, Docker, Spark, and Hadoop. Dkt#1 ¶25. For each of the Software Patents, Plaintiffs repeat the same allegation in each Count:

> Southwest, without authorization or license from IV, has directly infringed, and continues to directly infringe, literally and/or by the doctrine of equivalents, individually and/or jointly, the [###] Patent, by making, utilizing, servicing, testing, distributing, selling offering, and/or offering for sale the **Accused Products and Services** that infringe the [###] Patent, ***including but not limited to at least*** the **Accused Products and Services** identified in the example chart incorporated. . . .

Dkt#1 ¶¶39, 55, 71, 119. The term "Accused Products and Services" (which *includes* "Southwest Systems and Services") broadly refers to "*products, services, and technologies*" that Southwest

"makes, utilizes, services, tests, distributes, sells, offers, and/or offers for sale in the State of Texas and the Western District of Texas." Dkt#1 ¶7.

Beyond vaguely asserting that unspecified systems or services use the software programs Kubernetes, Kafka, Docker, Spark, and Hadoop (Dkt#1-8 at 2; Dkt#1-9 at 2; Dkt#1-10 at 2; Dkt#1-13 at 2; Dkt#1-14 at 2), the Complaint also accuses "all past, current, and future systems and services" that either "operate in the same or substantially similar manner" or "have the same or substantially similar features." *Id.* The Complaint also states these are merely nonlimiting examples. Dkt#1 ¶¶43, 59, 75, 123. Thus, Southwest cannot reasonably ascertain what specific systems or services are actually accused of infringing the Software Patents.

Like *Carpenter*, *OnStar*, and *Celgard*, the Complaint contains nothing beyond "bare" assertions that Southwest somehow infringes the Software Patents merely by referencing non-party software applications and without identifying which of *Southwest's* company-wide products and services are alleged to infringe any of the Software Patents. Because the Complaint broadly accuses unspecified "***products, services, and technologies***," *see, e.g.*, Dkt#1 ¶¶7, 39, that supposedly utilize third-party software programs, plus "all past, current, and future Southwest systems and services[,]" *see, e.g.*, Dkt#1-8 at 2, it is not possible to identify what conduct actually is accused of infringement.

The Complaint's conclusory allegations are so vague and broad that they could encompass virtually all aspects of Southwest's "airline and avionic related services and technologies" without describing any specific examples of uses or activities that supposedly infringe, leaving Southwest without fair "notice as to what [it] must defend." *Artrip v. Ball Corp.*, 735 F. App'x 708, 714–15 (Fed. Cir. 2018). An accusation of infringement must identify an accused product. *See, e.g.*, *Carpenter*, 620 F. App'x at 937; *LS Cloud Storage Techs., LLC v. Amazon.com, Inc. ("Amazon")*,

2023 WL 2290291, at *3–4 (W.D. Tex. Feb. 27, 2023) (dismissing direct infringement claims where the complaint failed to identify specific devices or software allegedly infringed certain claim limitations); *i2 Techs., Inc. v. Oracle Corp.*, 2010 WL 8669837, at *3 (E.D. Tex. Mar. 29, 2010) (dismissing as insufficient a complaint that failed to "identify any accused products or services for each of the patents-in-suit"); *MACOM Tech. Sols. Holdings, Inc. v. Infineon Techs. AG*, 2017 WL 3449596, at *5 (C.D. Cal. June 5, 2017) (same); *Prism Techs., LLC v. AT&T Mobility, LLC*, 2012 WL 3867971, at *5 (D. Neb. Sept. 6, 2012) (finding that allegation of infringement by "various wireless products and data services" was "so vague that it encompasses essentially AT&T's entire business," lacking adequate notice to defendant as to how it allegedly infringes); *Lantiq N. Am., Inc. v. Ralink Tech. Corp.*, 2011 WL 2600747, at *6–7 (N.D. Cal. June 30, 2011) (same).

The Complaint's vague accusations are inadequate, particularly considering the complexity of the cloud technologies. *Amazon*, 2023 WL 2290291, at *1 ("Given the complexity of the cloud storage systems, [a] [p]laintiff must show that infringement is a reasonable inference to draw."). The Software Patents include 168 claims; 18 are independent claims. Just as the Complaint lacks any reference to an infringing product or service, it fails to state *how* Southwest allegedly infringed the patents. *See Vega v. Maxim Integrated Prods., Inc.*, 2016 WL 9450607, at *3–4 (W.D. Tex. June 14, 2016) (granting dismissal where plaintiffs neither alleged a specific product that allegedly infringed nor "how, if at all, any individual Defendant may be directly or indirectly infringing").

Southwest should not be forced to guess what products, services, or activities allegedly infringe. This lack of specificity warrants dismissal. The Court should dismiss the direct infringement claims in Counts I-III and VI.[3]

[3] When the direct infringement claims are dismissed, the claims for enhanced damages must also be dismissed. *See* Dkt#1 ¶¶51, 67, 83, 131; *CTD Networks, LLC v. Google, LLC*, 688 F. Supp. 3d 490, 503 (W.D. Tex. 2023).

2. The Complaint acknowledges that some third-party software suppliers are licensed.[4]

The Complaint acknowledges that certain upstream providers of the third-party software programs and cloud computing services at issue are already licensed, but it fails to identify *which* providers are licensed. *E.g.*, Dkt#1-8 at 2 n.1. That acknowledgement magnifies the *implausibility* of Plaintiffs' infringement claims—because the Complaint merely speculates that some uses of the software programs might be unlicensed.[5] Indeed, "[t]he inclusion of [the phrase 'on information and belief'] creates an 'inference that [Plaintiffs] likely lack[] knowledge of the underlying facts to support the assertion[s], and [are] instead engaging in speculation to an undue degree.'" *Celgard*, 2020 WL 7392909, at *5; *e.g.*, Dkt#1-8 at 2. While Plaintiffs state that they "will provide relevant license agreements for cloud providers in discovery[,]" Plaintiffs cannot move forward with costly litigation before satisfying the plausibility standard. *See Bell Atl. Corp. v. Twombly*, 550 U.S 544, 556, 558 (2007) ("[A] district court must retain the power to insist upon some specificity in pleading before allowing a potentially massive factual controversy to proceed."); *Iqbal*, 556 U.S. at 678–79 ("Rule 8 . . . does not unlock the doors of discovery for a plaintiff armed with nothing more than conclusions.").

[4] To the extent the Complaint attempts to allege joint infringement, *e.g.*, Dkt.#1 ¶39, it fails to state a claim because it does not identify any specific third parties who are part of the infringement or allege the requisite direction or control. *See Lyda v. CBS Corp.*, 838 F.3d 1331, 1338–39 (Fed. Cir. 2016).

[5] *See Radar Indus., Inc. v. Cleveland Die & Mfg. Co.*, 424 F. App'x 931, 933 (Fed. Cir. 2011) ("An express or implied license is a defense to infringement.").

3. In particular, the infringement allegations against the Docker program (Count I) are implausible.

The Complaint also fails to plausibly plead direct infringement of the '844 Patent because it lacks sufficient factual allegations to support a reasonable inference that Docker—a third-party application—practices the "leaf image" limitation. The limitation recites in part:

> storing leaf images for respective compute nodes on respective second storage units, *said leaf images including only additional data blocks not previously contained in said root image and changes made by respective compute nodes to the blocks of the root image* . . . .

Dkt#1-1 at 11:31-38. Relying on screenshots of purported Docker product literature, the Complaint alleges that Southwest performs the leaf image limitation. Dkt#1-9 at 24-29. To map the leaf image limitation to Docker, the Complaint asserts:

> [W]hen a container is created or started, a thin writable container layer is added on top of the other layers, and any changes the container makes to the ***filesystem*** are stored in this layer, whereas any ***files*** that the container does not change do not get copied into this layer.

Id. at 27. It further provides an example where:

> [T]he image layer includes ***file*** 1, ***file*** 2, and ***file*** 3, and the container layer includes ***file*** 2 and ***file*** 4. The container mount provides a unified view of the image and container layers. In this example, the container layer does not include ***file*** 1 or ***file*** 3, and includes ***file*** 2 and ***file*** 4, which have been modified or created.

Id. at 29. Additionally, the claim chart alleges that Docker supports copying a file from a read-only layer into the writable layer for modification. *Id.* at 23–24, 27–28.

These allegations do not support that copying a *file* for modification at the *filesystem* level practices the claim limitation that leaf images include only additional *data blocks* and changes to blocks of the root image. *See Veritas Techs. LLC v. Veeam Software Corp.*, 835 F.3d 1406, 1410 (Fed. Cir. 2016) ("[A] person having ordinary skill in the art would understand that . . . blocks often make up a file."); *Quanergy Sys., Inc. v. Velodyne Lidar USA, Inc.*, 24 F.4th 1406, 1415 n.7 (Fed. Cir. 2022) ("A file is essentially a named collection of blocks, which contain all of the data

of the file."). Such a discrepancy renders Plaintiffs' infringement claim "not even possible, much less plausible." *Bot M8*, 4 F.4th at 1354. As the court noted, simply providing a claim chart or element-by-element mapping is insufficient to plausibly state a claim. *See Vervain,* 2022 WL 23469, at *6–7. Because the Complaint fails to provide the necessary factual support to plausibly allege that Docker practices the leaf image limitation, the infringement claim in Count I should be dismissed.

D. Counts I–III and VI: Plaintiff's Indirect Infringement Claims Are Implausible.

To allege induced infringement, Plaintiffs must show that Southwest knowingly induced a third party to infringe the patent with specific intent. *Affinity Labs of Tex., LLC v. Toyota Motor of N. Am.*, 2014 WL 2892285, at *2 (W.D. Tex. May 12, 2014). Contributory infringement requires proof that the accused material is essential to practicing the invention, lacks substantial non-infringing uses, and was sold with knowledge of its infringing purpose. *Cleveland Clinic Found. v. True Health Diagnostics LLC*, 859 F.3d 1352, 1363 (Fed. Cir. 2017). Indirect infringement claims require that the defendant knew of the patent and that third-party acts infringed it. *CTD Networks LLC v. Microsoft Corp.*, 2023 WL 5417141, at *9 (W.D. Tex. Aug. 22, 2023).

1. Pre-suit indirect infringement is not plausibly alleged.

Plaintiffs allege Southwest was willfully blind to the patents' existence, which is insufficient without affirmative actions to avoid knowledge. *Kirsch Research & Dev., LLC v. Tarco Specialty Prods., Inc.*, 2021 WL 4555802, at *2 (W.D. Tex. Oct. 4, 2021). Plaintiffs also claim Southwest received actual notice via a letter on November 1, 2024, one day before the lawsuit was filed. This timeline does not reasonably support the inference that, within a single day, Southwest could have (or should have) acquired the requisite knowledge of six complex patents or an understanding of why its actions might constitute infringement.

2. Post-suit indirect infringement is not plausibly alleged.

a. Induced Infringement

The Complaint does not identify specific Southwest products or services, a threshold requirement. *Joao Control & Monitoring Sys. of Tex., LLC v. Playboy Enters. Inc.*, 2010 WL 11628855, at *3 (E.D. Tex. Mar. 29, 2010). Generic allegations that Southwest "encourages" or "instructs" infringement through promotion and advertising, without factual support, fail to show Southwest specifically intended to encourage infringement. *Largan Precision Co. v. Genius Elec. Optical Co.*, 646 F. App'x 946, 948 (Fed. Cir. 2016). The claim charts lack evidence—such as product literature—to substantiate such claims. *Affinity Labs*, 2014 WL 2892285, at *7–8. As such, the induced infringement claims are not plausible and should be dismissed.

b. Contributory Infringement

Plaintiffs' contributory infringement claims similarly fail to identify specific accused products or components used to infringe. Without such specificity, it is implausible to infer that Southwest's products lack substantial non-infringing uses. *Apple Inc.*, 2015 WL 4910427, at *5. Plaintiffs also admit that third-party programs are licensed, undermining their allegations. Southwest's role as an airline does not align with the sale of infringing material or apparatus, as required for contributory infringement. *Cleveland*, 859 F.3d at 1363.

IV. CONCLUSION

For the foregoing reasons, Defendant Southwest Airlines Co. respectfully requests that the Court dismiss Counts I–III and VI of Plaintiffs' Complaint.

Dated: January 27, 2025

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of this document was filed and served to all counsel of record using the Court's CMECF system on January 27, 2025.

/s/ S. Wallace Dunwoody
S. Wallace Dunwoody

APPENDIX
(exemplary patent claims)

U.S. Patent No. 8,332,844, Claim 7

7. A method for providing data to a plurality of compute nodes, comprising:

storing blocks of a root image of said compute nodes on a first storage unit;

storing leaf images for respective compute nodes on respective second storage units, said leaf images including only additional data blocks not previously contained in said root image and changes made by respective compute nodes to the blocks of the root image, wherein said leaf images of respective compute nodes do not include blocks of said root image that are unchanged by respective compute nodes; and

caching blocks of said root image that have been accessed by at least one of said compute nodes in a cache memory.

U.S. Patent No. 7,257,582, Claim 1

1. A method of effecting on a preexisting input file a computer-executable process comprised of a plurality of subtasks, the method comprising the steps of:

(a) automatically determining file allocation and logically subdividing records of said input file into a plurality of partitions;

(b) distributing descriptions of all of said partitions to each of a plurality of subtask processors

(c) simultaneously executing at least a respective one of the subtasks of the computer-executable process in each of at least some of said processors on a respective one of the partitions with each subtask reading and processing the respective partition so as to process the respective partition and produce respective subtask output and;

(d) thereafter repeating step (c) in at least some of the subtask processors each with another unprocessed partition on a first-come/first-served basis; and

(e) generating at least one output combining all of the subtask outputs and reflecting the processing of all of said subtasks.